

Add new claims 22 and 23 as follows:

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Acf*

22. The method of claim 19 wherein the step of forming a layer of porous silicon is by converting the etched portion of the semiconductor substrate surface from a non-porous silicon material to a porous silicon material.

23. The method of claim 19 wherein the step of forming a layer of porous silicon is by depositing a layer of porous silicon material on the etched portion of the semiconductor substrate surface.

new matter

REMARKS

Claims 1 to 4 and 6 to 23 are pending in the present application. Claims 1, 2, 9, 10 and 19 have been amended, and claims 22 and 23 are new, for which there is support in the specification, claims and drawings as originally filed.

Reconsideration of the Examiner's decisions and reexamination of this application are respectfully requested.

A clean copy of the amendments to the claims is included with this Amendment.
A MARKED-UP VERSION SHOWING CHANGES MADE is included in the APPENDIX.

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The §102 rejections:

Claims 1, 6 to 8, 13 to 14 and 19 to 21 have been rejected by the Examiner under 35 USC §102(e) as being anticipated by Cho U.S. Patent 6,143,669.

In view of the Examiner's indication (below) of allowable subject matter and Applicants' amendment of the claims in conformance therewith, it is submitted that the 35 USC §102 rejection of claims 1, 6 to 8, 13 and 14 is believed to be moot.

Claim 19 has been amended by reciting that the step of increasing a differential oxidation rate value comprises "forming a layer of porous silicon" and that the first oxide layer "on the layer of porous silicon" has a thickness greater than the second oxide layer thickness. Cho obtains his differential oxidation rate value by implanting germanium. There is no disclosure in Cho to obtain a differential oxidation rate value by forming a layer of porous silicon. Therefore, Cho cannot anticipate Applicants' claim 19.

Inasmuch as claims 20 and 21 depend from claim 19, and claim 19 is believed to be patentable, then claims 20 and 21 should be patentable as well.

New claims 22 and 23 have been added which recite further steps in forming the layer of porous silicon. Thus, claim 22 recites that the step of forming is by converting "the semiconductor substrate surface from a non-porous silicon material to a porous

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silicon material" while claim 23 recites that the step of forming is by "depositing a layer of porous silicon material". Since Cho, again, only deals with increasing the differential oxidation rate value by implanting germanium, Cho cannot anticipate Applicants' claims 22 and 23.

In view of the preceding remarks, it is submitted that claims 1, 6 to 8, 13, 14 and 19 to 23 should be allowable.

The §103 rejection:

Claims 11 and 12 have been rejected by the Examiner under 35 USC §103 as being unpatentable over Cho.

In view of the Examiner's indication (below) of allowable subject matter and Applicants' amendment of the claims in conformance therewith, it is submitted that the 35 USC §103 rejection of claims 11 and 12 is believed to be moot. Accordingly, claims 11 and 12 should be allowable.

Allowable subject matter:

The Examiner has indicated that claims 2 to 5, 9 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in

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independent form including all of the limitations of the base claim and any intervening claims.

Applicants have rewritten claims 2, 9 and 10 to incorporate the limitations of claim 1, from which claims 2, 9 and 10 depend. Claims 3 and 4 are dependent on claim 2. Claim 1 has been amended by incorporating the limitation of claim 5; claim 5 has consequently been canceled without prejudice. With these amendments, claims 1 to 14 should be in condition for allowance.

The Examiner has further indicated that claims 15 to 18 are allowable.

Summary:

In view of all of the preceding remarks, it is submitted that all of claims 1 to 4 and 6 to 23 are in condition for allowance. If the Examiner finds this application deficient in any respect, the Examiner is invited to telephone the undersigned at the Examiner's earliest possible convenience to resolve such deficiency.

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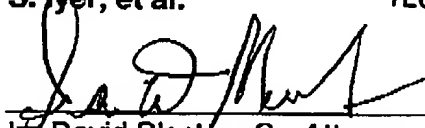
Respectfully submitted,

JAN 14 2003

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APPENDIX
VERSION SHOWING CHANGES MADE

In the claims:

Cancel claim 5 without prejudice.

Amend claims 1, 2, 9, 10 and 19 as follows:

1. (Amended) A method of forming oxide layers of varying thicknesses across a semiconductor substrate surface, comprising:
 - patterning and blocking a semiconductor substrate surface with a layer of photoresist material;
 - removing a portion of the photoresist material layer to expose a device isolated region on a blocked semiconductor substrate surface;
 - increasing a differential oxidation rate value of an exposed semiconductor substrate surface comprising converting the exposed semiconductor substrate material from a non-porous silicon material to a porous silicon material;
 - removing the layer of photoresist material;
 - oxidizing the semiconductor substrate surface;
 - forming a first oxide layer having a first thickness on the exposed semiconductor substrate surface; and

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forming a second oxide layer having a second thickness on the blocked semiconductor substrate surface, wherein the first thickness is greater than the second thickness.

2. (Amended) A method of forming oxide layers of varying thicknesses across a semiconductor substrate surface, comprising:

patterning and blocking a semiconductor substrate surface with a layer of photoresist material;

removing a portion of the photoresist material layer to expose a device isolated region on a blocked semiconductor substrate surface;

increasing a differential oxidation rate value of an exposed semiconductor substrate surface;

removing the layer of photoresist material;

oxidizing the semiconductor substrate surface;

forming a first oxide layer having a first thickness on the exposed semiconductor substrate surface; and

forming a second oxide layer having a second thickness on the blocked semiconductor substrate surface, wherein the first thickness is greater than the second thickness [The method of Claim 1], wherein the [increase in the] step of increasing a differential oxidation

rate value further comprises immersing the semiconductor substrate into a solution while passing a current of about 0.1 milliamps per centimeters squared to about 300 milliamps per centimeters squared.

9. (Amended) A method of forming oxide layers of varying thicknesses across a semiconductor substrate surface, comprising:

patterning and blocking a semiconductor substrate surface with a layer of photoresist material;

removing a portion of the photoresist material layer to expose a device isolated region on a blocked semiconductor substrate surface;

increasing a differential oxidation rate value of an exposed semiconductor substrate surface;

removing the layer of photoresist material;

oxidizing the semiconductor substrate surface;

forming a first oxide layer having a first thickness on the exposed semiconductor substrate surface; and

forming a second oxide layer having a second thickness on the blocked semiconductor substrate surface, wherein the first thickness is greater than the second thickness [The method of Claim 1], wherein the [formation of the] step of forming a first oxide layer

further [comprises] comprising forming a first oxide layer on a porous silicon layer of the semiconductor substrate surface.

10. (Amended) A method of forming oxide layers of varying thicknesses across a semiconductor substrate surface, comprising:
- patterning and blocking a semiconductor substrate surface with a layer of photoresist material;
 - removing a portion of the photoresist material layer to expose a device isolated region on a blocked semiconductor substrate surface;
 - increasing a differential oxidation rate value of an exposed semiconductor substrate surface;
 - removing the layer of photoresist material;
 - oxidizing the semiconductor substrate surface;
 - forming a first oxide layer having a first thickness on the exposed semiconductor substrate surface; and
 - forming a second oxide layer having a second thickness on the blocked semiconductor substrate surface, wherein the first thickness is greater than the second thickness [The method of Claim 1], wherein the [formation of the] step of forming a second oxide layer
 - further [comprises] comprising forming a second oxide layer on a non-porous silicon layer of the semiconductor substrate surface.

19. (Amended) A method of forming oxide layers of varying thicknesses across a

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semiconductor substrate surface, comprising:

photomasking a semiconductor substrate surface with a photoresist material;

etching a portion of the semiconductor substrate surface;

increasing a differential oxidation rate value of an etched portion of the semiconductor substrate surface comprising forming a layer of porous silicon;

stripping the photoresist material;

oxidizing the semiconductor substrate surface; and

growing two or more oxide layers, wherein a first oxide layer on the layer of porous silicon has a thickness greater than a second oxide layer thickness.

Add new claims 22 and 23 as follows:

22. The method of claim 19 wherein the step of forming a layer of porous silicon is by converting the etched portion of the semiconductor substrate surface from a non-porous silicon material to a porous silicon material.

23. The method of claim 19 wherein the step of forming a layer of porous silicon is by depositing a layer of porous silicon material on the etched portion of the semiconductor substrate surface.